

# SHIPS THAT PASS IN THE NIGHT WILL NOW SEND MESSAGES AS IF BY MAGIC.

## Eighteen Thousand Phrases May Be Signalled on the Darkest Night.

UNDER cover of darkness on Tuesday evening two stout sea-going tugs, the William E. Chapman and the Wallace B. Flint, dropped down to Sandy Hook and manoeuvred off the ice-bound coast until nearly midnight.

And then there came to pass a thing that will be told of for years to come, wherever men who sail the seas may be found—something that will rank with the most famous of the experiments that have made for the saving of human lives imperilled by the mischances of a sailor's life.

To a few words, it was demonstrated by the Journal that the international code of signals could be used by night as well as by day.

It remains to be announced, before the story is told in detail, that this momentous discovery was, up to to-day, the absolute property—bought and paid for—of the Journal. Now it is the property of the maritime world, which holds it in trust for humanity.

The Journal was at pains to test the value of its possession. That having been tri-

like 18,000 phrases expressing pretty nearly everything that one shipmaster would be likely to want to say to another under any conceivable condition. To read the key to the code is to travel in imagination over the whole realm of sea lore. And all this may be accomplished by holding combinations of from two to four of the code flags. Question, answer, appeal, promise, warning, advice—all are conveyed in the fluttering symbols.

For facility in translation each flag of the eighteen represents a letter of the alphabet, the letters being the consonants ranging from B to W. Does a ship want medical assistance? The signal is P. Z., which, being interpreted, means a square flag of blue with a small white square in the center, flying over a triangular red flag with a white ball in the center. Is food wanted for starving crew? The signal is P. H.

Does one vessel want to notify another that war has been declared, that there is danger of pirates, that there is heavy weather coming from a given point of the

THE simple but comprehensive system of signalling known as the International Code can be used by night as well as by day. The Journal has acquired the new process and demonstrated its complete practicability. Now it presents this boon to the maritime world.

The crucial test was made on Tuesday night. Two tugs, chartered by the Journal, were equipped for the experiments and steamed out to Sandy Hook, off which the Journal's system of night signalling was given a fair and exhaustive trial in the presence of a company of marine experts. It was proved, to the amazement of the onlookers, that the flags used in the international code could be plainly distinguished on the darkest night at a distance of nearly two miles.

How this was done and how much the discovery means to humanity are told here by those who witnessed the test.

were engaged in it were warm with enthusiasm and laughed at the cold and the spiteful sting of the wind.

The electrical arrangements were in charge of Mr. Albert N. Chapman, who knows almost as much about omni-volts and the like as he knows of deep sea wrecking. And that is saying much, indeed. He stood by the big searchlight on the top of the pilot house throughout the entire cruise and there was no man more pleased than he when the trials were demonstrated a success.

The big, broad-beamed tug backed away from her dock at Pier 38, East River, at 6:20 last night, and followed in the wake of the Wallace B. Flint, which had aboard

gloom, so that it seemed to stand alone in the sky.

A second's interval, and then about two miles astern glowed the red light of a signal on the Flint. The flags had been read. Then a second signal was sent up aft, the flags standing out as straight and even as the others, M. it—M. with its diagonal white bars across a blue field; B. with a red square in each corner, like little brick houses, and two white streets running at right angles to each other. These flags stood out so bravely that they seemed to be frozen there, which was admirable for signalling, for after the first concentration of the light upon them the Flint began to glow with red once more.

**Boarding the Lightship.**  
The course was then laid to Scotland Lightship, whose lights shown dully, like two great red roses, above the weather-beaten craft that keeps its vigil day in and day out, through summer shine and winter blow. And the bluff men who spend their lives there saw the signals and wondered greatly, while the twin lights on the Highlands looked as if in wide-eyed amazement across the waste of waters.

Getting aboard the lightship was something of a damp job, for the sea was coming up and the wind was growing fresher and the spray went over the surf boat in sharp puffs. Six men bent at the waist and the helmsman in oil skins stood in the stern steering with a long oar. It was bitter work, not so much to men

pierced the black sky a half mile away.

"The flags are being run up," he cried.

"There they are, as plain as day—N. and J."

"I am driving; no more anchor to let go."

translated the man with the signal code in his hands, holding it close to the dim lantern on the floor of the Wallace B. Flint's pilot house.

"Why, I can read 'em with the naked eye," exclaimed Captain Walter Brandow, who was standing at the wheel.

A package of Coston lights was quickly opened, and one with a red band selected. It was fixed in the handle and a single blow set it burning. The carmine glare was at once distinguished on board the Chapman. Down came the checkered flag, and its companion with the band of white, sandwiched between strips of blue. The man at the helmsman of the steamship knew by the red light from the tug that the signals had been seen and interpreted.

"There go two more," shouted Captain Rhodie. "The other two were hoisted forward; this time they are aft. M. R. I make them out."

And the man with the code translated again:

"Endeavor to send us a line."

In the intense glare of the 2,500 candle-power searchlight on board the distant tug the red flag at the bottom "R" shone as brightly in the clear sky as did the two red balls off fire on board the Scotland

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## Grave Perils of the Sea Banished by the Journal's Discovery.

Lightship. The color could be distinguished far more easily than by day. The signal was understood immediately. Another red Coston light was burned to indicate this, and again the flags and their position was changed.

Three buoys had been run up on the foremast again. They could be seen distinctly, although the Chapman was now a full mile away and the cloud of steam that poured from her exhaust pipes rolled between the tug and the signals. The steam prevented those on

that green light. OVS is their signal."

"What's the matter? they are asking," said the man with the code, and all hands took a look at the flags. The search light was being played first on one flag, then on the second, and finally on the third. Then it was trained lower, and a strip of the surface of the sea was illuminated for miles. It was when the light was below all three of the signal flags that they could be distinguished plainest. This led Captain Brandow to say:

"I believe those signals could be read in the light of an ordinary 'barou' or a calcium just as well as is not better than

### ITS SIMPLICITY "SIMPLY PARALYZING."

THERE is no doubt in my mind as to the practicability of the plan. After all the experiments that have been made, the simplicity of the only scheme that has met with any degree of success in the way of night signalling by the international code is simply paralyzing. I must confess that I was as greatly surprised as anybody when I saw how clearly the signals stood out in the light, and when we got the red flashes from the Flint I was as much excited as though I had thought out the scheme myself.

Of course, being on the boat on which the experiment was made, I can only speak of what I saw from there, but it is my opinion that the scheme is perfectly reliable at a distance of two miles with the size of flags we had to-night, and under the adverse conditions surrounding us. With larger flags and other improvements that might suggest themselves to those who use the system I presume signalling can be done as easily at night as it can in daylight.

It is a great thing for navigation. In our business it will be of inestimable value to us. We have always had trouble with our night signalling, and will lose no time in giving the new plan a practical trial, which will result, I am sure, in its adoption. I am particularly impressed with the plan because of the hard conditions under which the experiment was conducted. Fair weather experiments of this character hardly convince, but the experiments carried on to-night overcame every obstacle known to mariners almost, excepting fog.

J. S. F. McLEOD,  
Commander Chapman Fleet.

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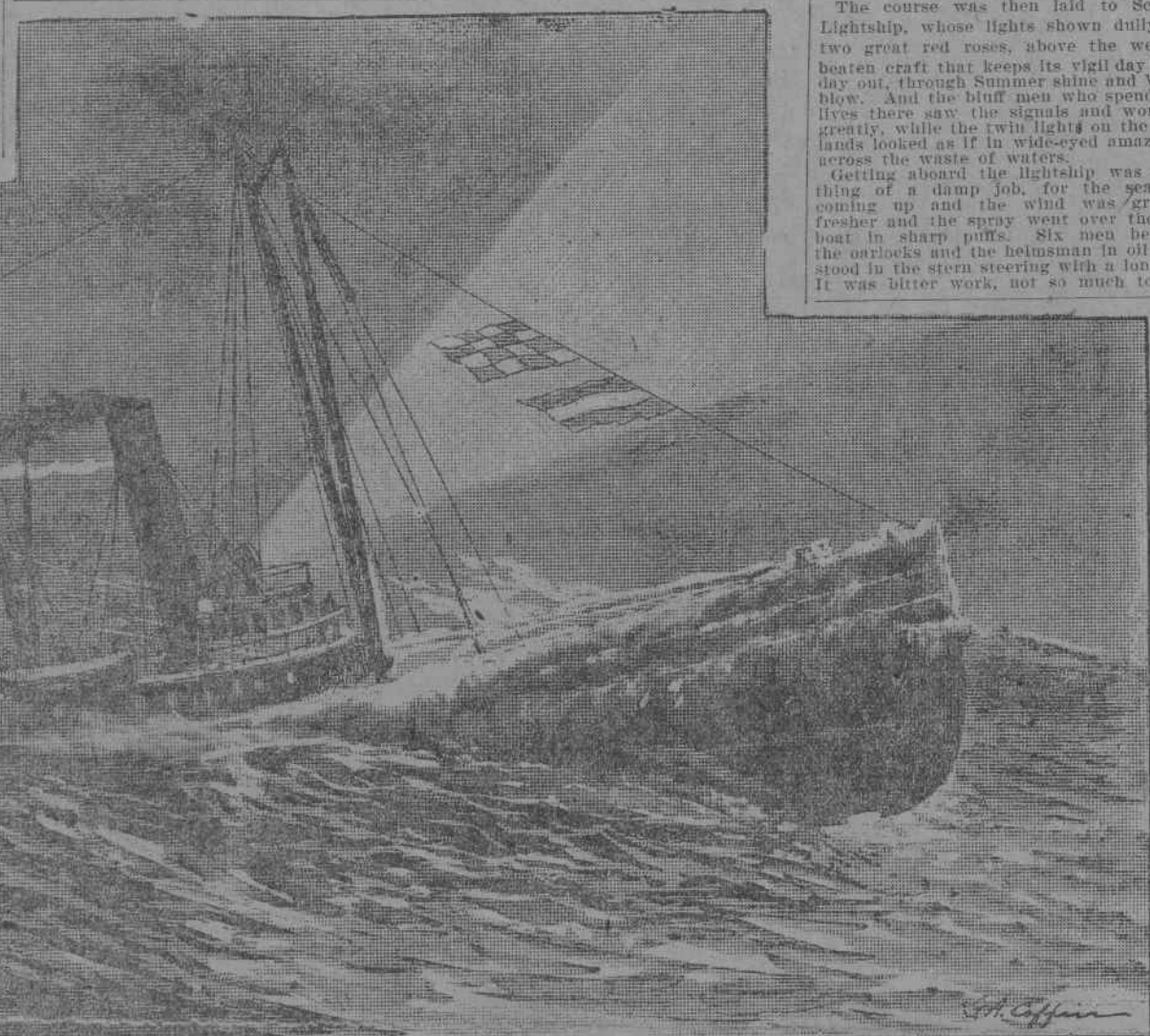
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FLYING THE FIRST SIGNAL ON THE CHAPMAN.

unphantly demonstrated it makes a point thereof to mankind.

As to the value of the gift, no mathematician may estimate it. Even if the sum could be told it must needs be expressed not in dollars nor pounds nor napoleons nor laces of rupees, but in ships and cargoes, and, above all, in the lives of men.

No seaman, no shipowner, no man or woman whose loved ones follow the sea, no traveler of experience, even, needs to be told what vast issues hang to the hitherto unsolved problem of signalling at night. But for the benefit of those to whom the deep and the perils of its rotaries are an unknown book there is here set forth a string of facts which demonstrates how great a prize the Journal has presented to the navies and merchant marine of the nations.

But first to the discovery itself. It rests on this question, which suggested itself

"OF INCALCULABLE VALUE."

"I consider that the experiments with international code flags at night will be of incalculable benefit to the merchant marine. It was a complete success. I witnessed it from the pilot house of my boat and could read the signals easily with my night glasses.

WALTER BRANDOW,  
Captain Tug Wallace B. Flint.

not long ago to the mind of a thoughtful man.

Why cannot flags be read at night if a searchlight be directed upon them from the deck of the ship signalling?

Simple? Of course. Nothing could be simpler. So simple, indeed, that the mind almost refuses to accept the knowledge that such a primitive idea had never occurred to any one before. So simple that, granting its practicability, no such consideration as expense, or difficulty of operation, or cumbersome, or trouble as regards equipment, could possibly stand for one moment in the way of its instant adoption. Here is the proposition in a nutshell:

Every sea-going vessel carries the flags of the international code, wherever it talks to other ships by day.

The best equipped of vessels have but the most rudimentary means of communicating with each other by night. Merchant vessels cannot even tell their own names.

Warships and the larger passenger steamers are equipped with searchlights. Even tramp steamers and large sailing vessels have their dynamo and could install searchlights without heavy expense. Smaller craft can produce flare lights, which would serve just as well in an emergency.

To read code signals displayed by a vessel (A) from a vessel (B) by means of a flash light directed from the deck of B has been tried fruitlessly again and again. To read A's signals by means of A's own flare light had never been tried until the Journal tried it on